QTH

P

DSP'

FE'

A

DET

EBI

LBO

EBO

CSM'

FE

STG

SS

DSP

CSM

FIG. 1

QTZ

DET

F2

F1

RBI

RBO

FE

FE'

P
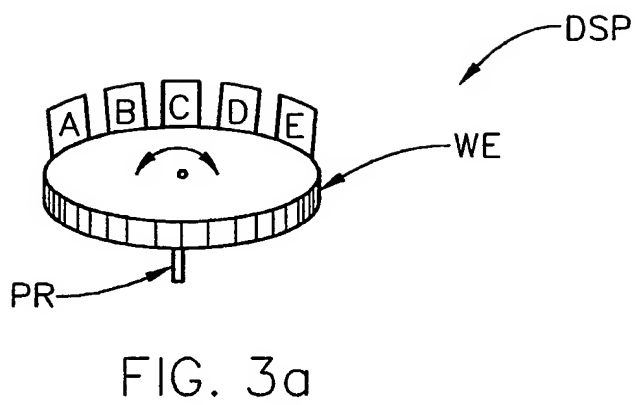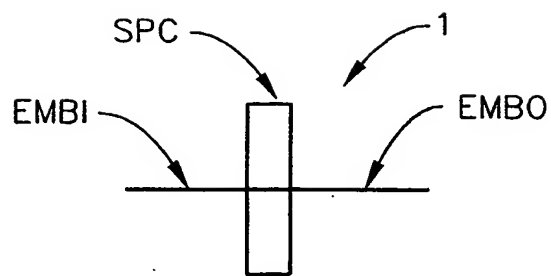
DSP'

FE'

A

COUP

EBI

EBO

COUP

CSM'

FE

STG

SS

DSP

CSM

FIG. 2

FIG. 3a

FIG. 3b

FIG. 3c

FIG. 3d

SPC

EMBI

EMBO

1

FIG. 3e

MOB1

MOA2

MOB2

MOA1

EMBO

EMBI

ZO1

ZO2

2

FIG. 3f

FAA1

FAB1

FIG. 3g
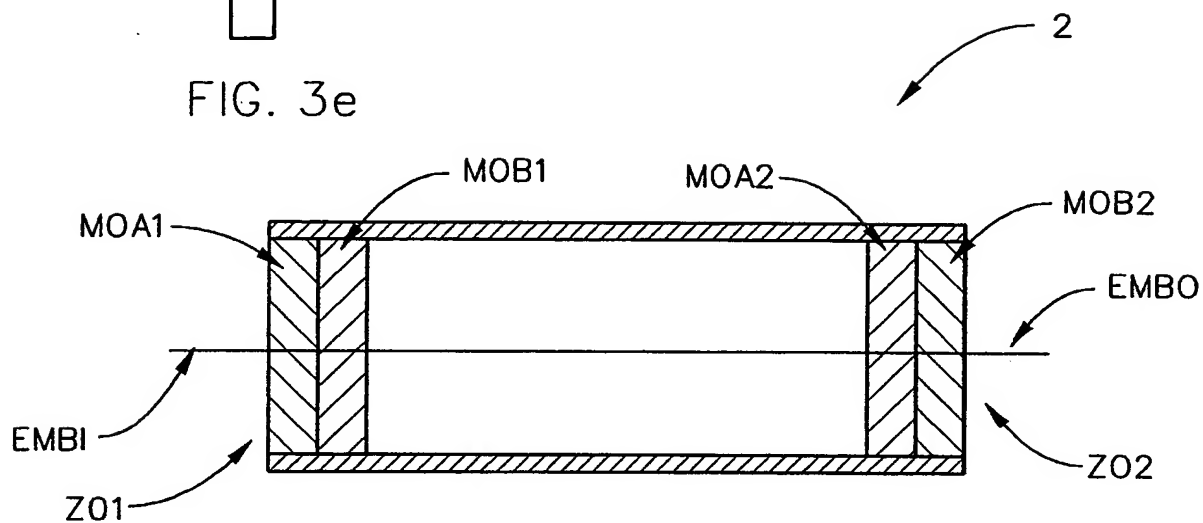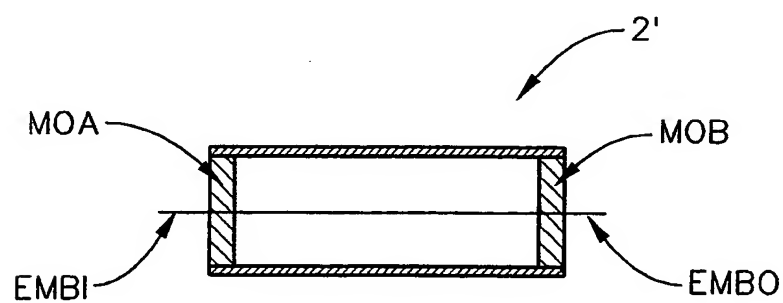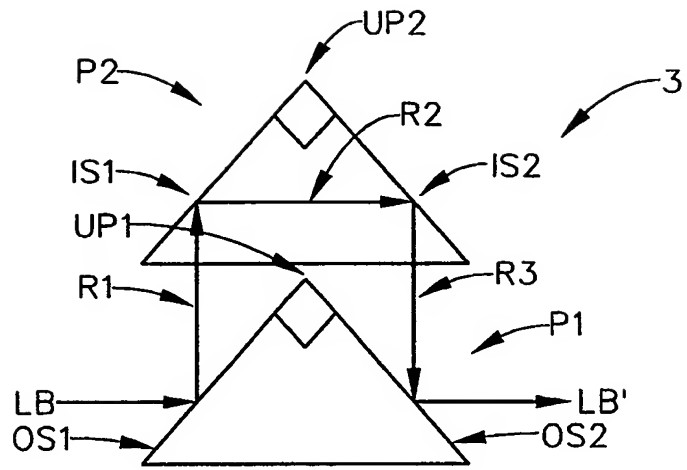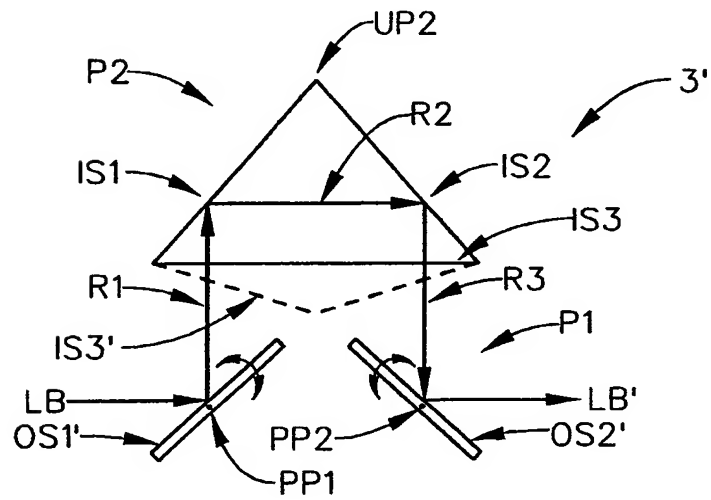
FAA1

45°

FAB2

FAA2

FIG. 3h

MOA

MOB

2'

EMBI

EMBO

FIG. 3i

FIG. 3j₁

FIG. 3j₂

FIG. 3k

FIG. 3l

FIG. 3m

BK1

BK2

LS1

LS2

RS2

LB

RS1

β

LB'

FIG. 3n₁

BK1
(& BK2)

BK2

φ

FIG. 3n₂

10 & 11

BK1

BK2

BK3

BK4

LS1

LS2

RS2

RS3

RS4

LB

α

α

β

RS3

β

LB''

RS1

LB'

LS4

FIG. 3o₁

Two
Berek
Plates

Two
Berek
Plates

φ

FIG. 3o₂

7

RS1   LS2

PA1   PA2

TS1   TS2

LB   LB'

BS2
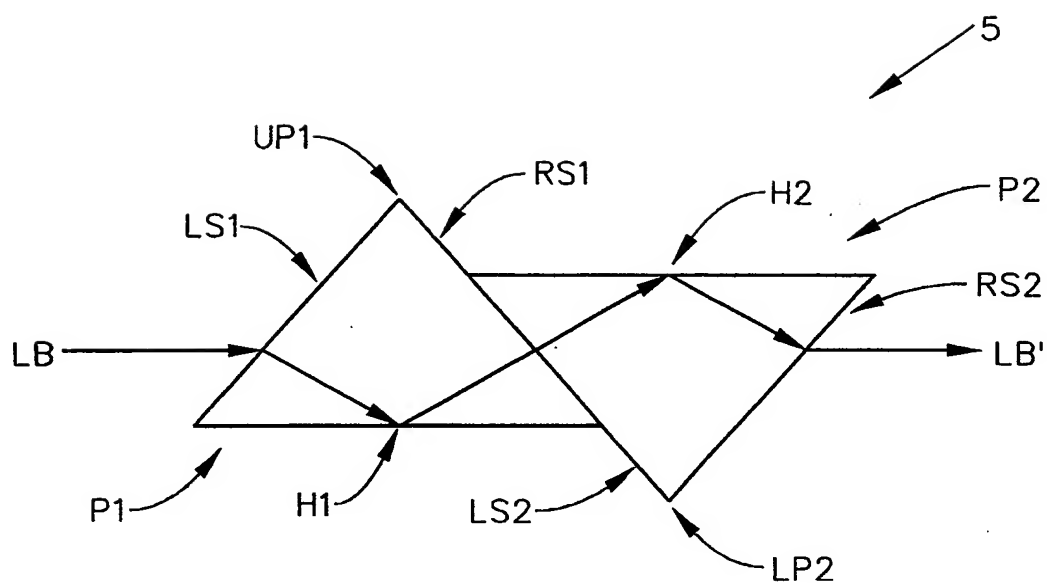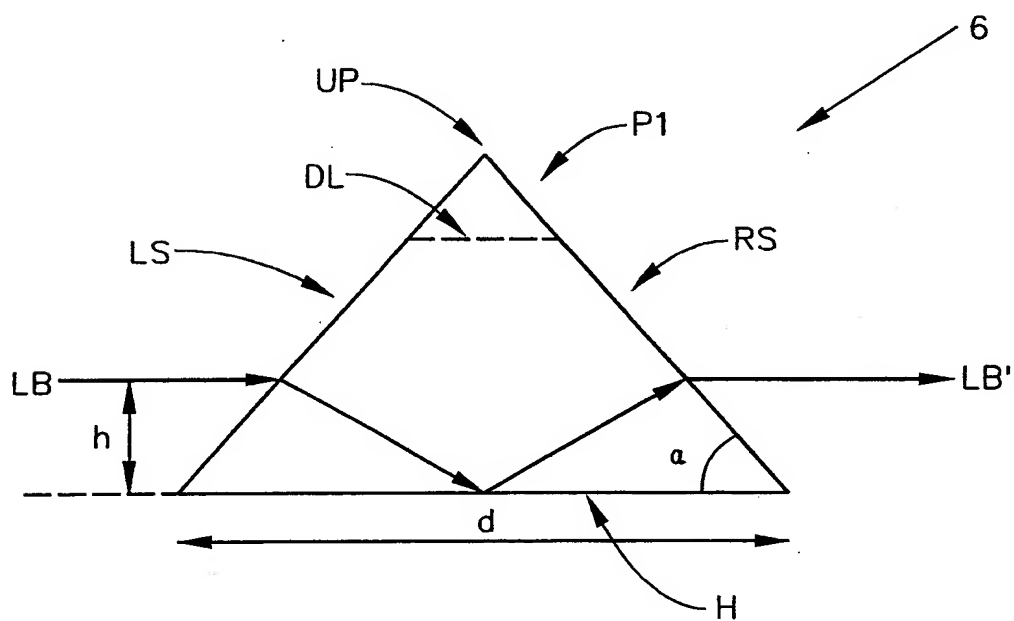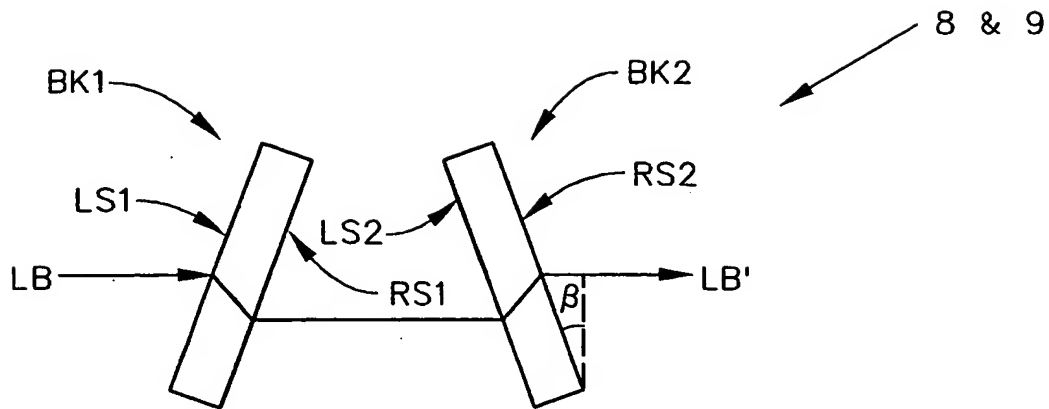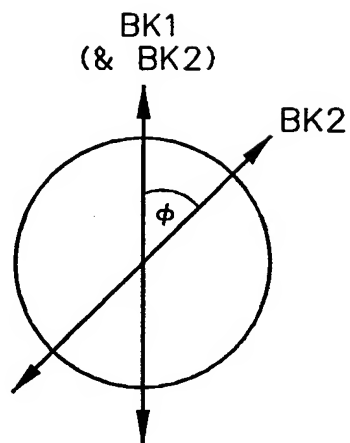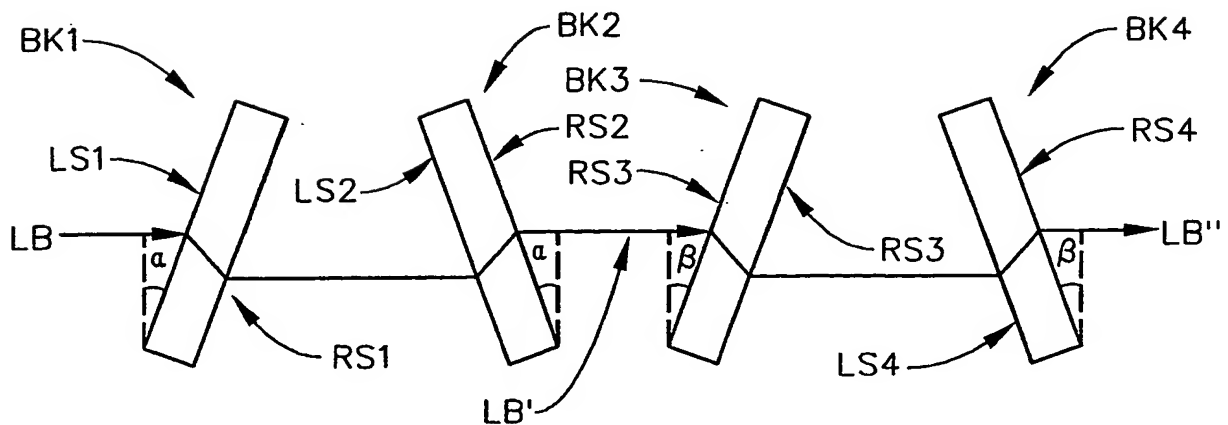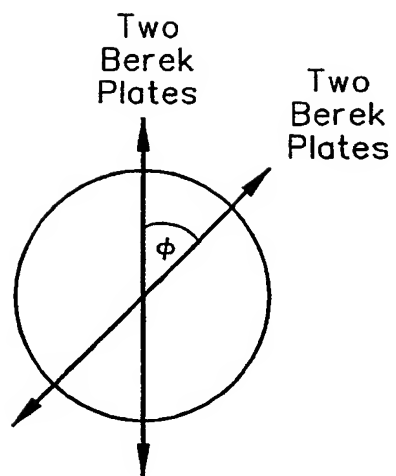
LS1   BS1   RS2
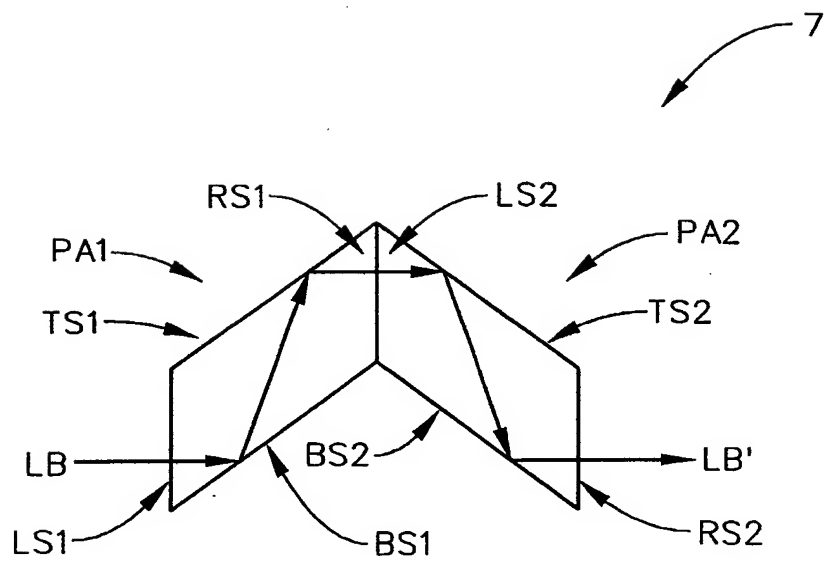
FIG. 3p

COMPARISON OF SINGLE vs. DUAL
WAVEPLATE COMPENSATOR DESIGN

TWO 1/4 WAVEPLATES
ROTATED AZIMUTHAL
ANGLE 45 DEGREES AT
λc = 266 & 633 nm

SINGLE WAVEPLATE
λc = 240 nm

Retardation (degrees)

130

110

90

70

50
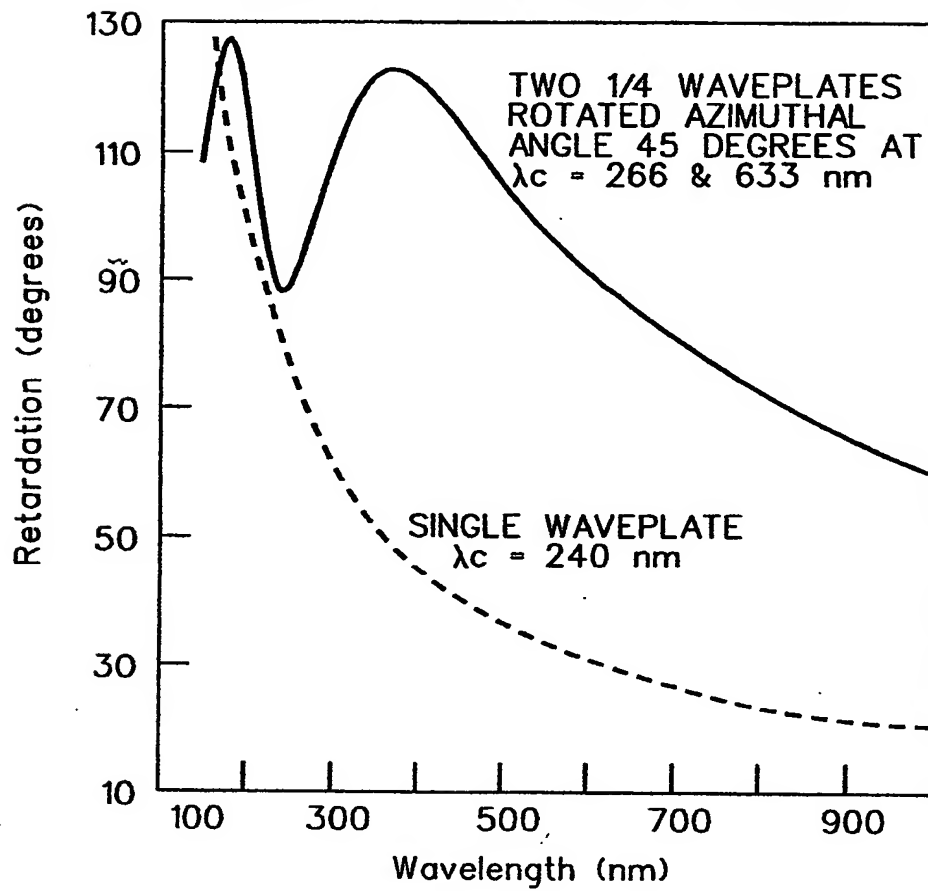
30

10

Wavelength (nm)

100   300   500   700   900

FIG. 4

Retardance Characteristics of Waveplates
used in Dual Element Compensator Design
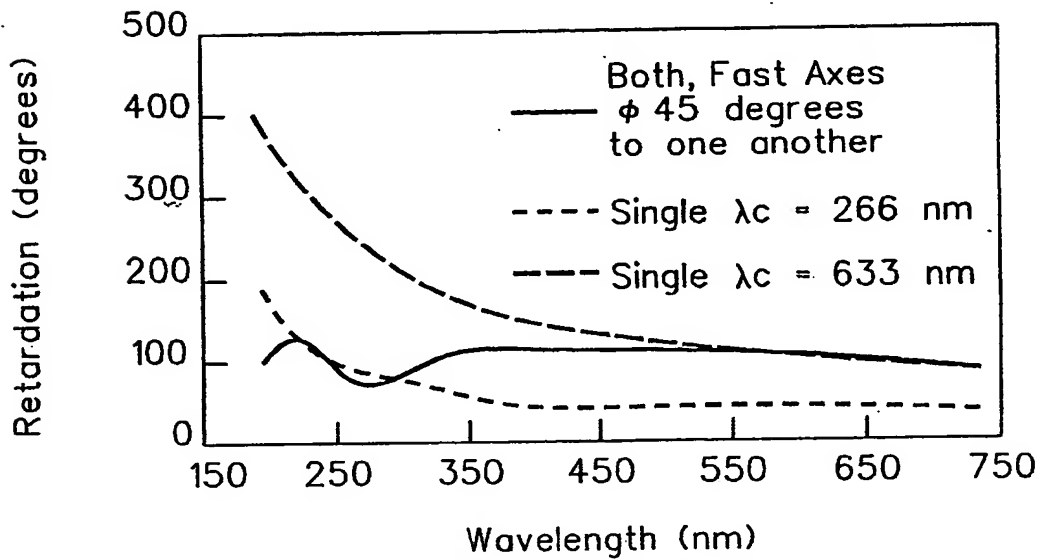

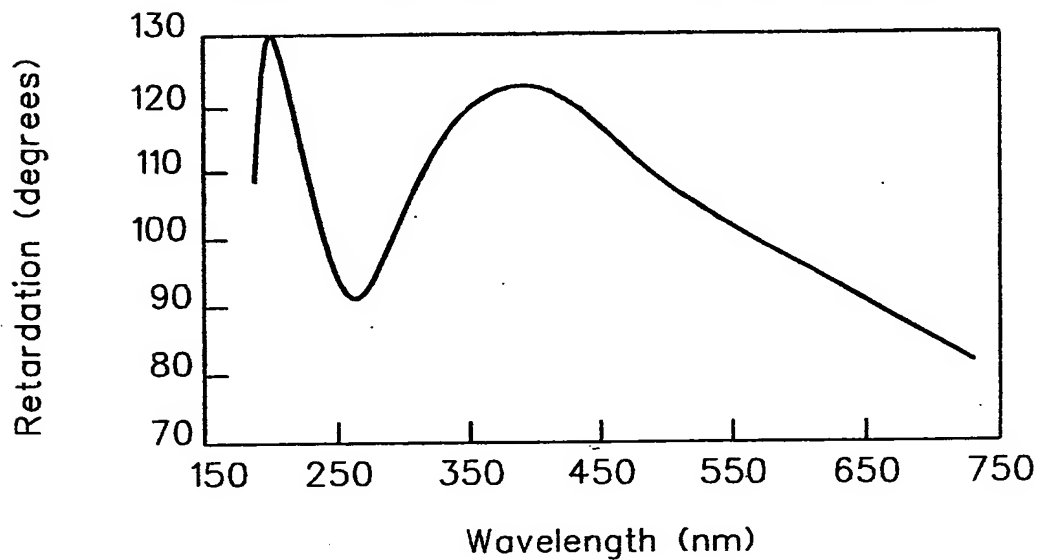FIG. 5

Present Invention Dual Element Design
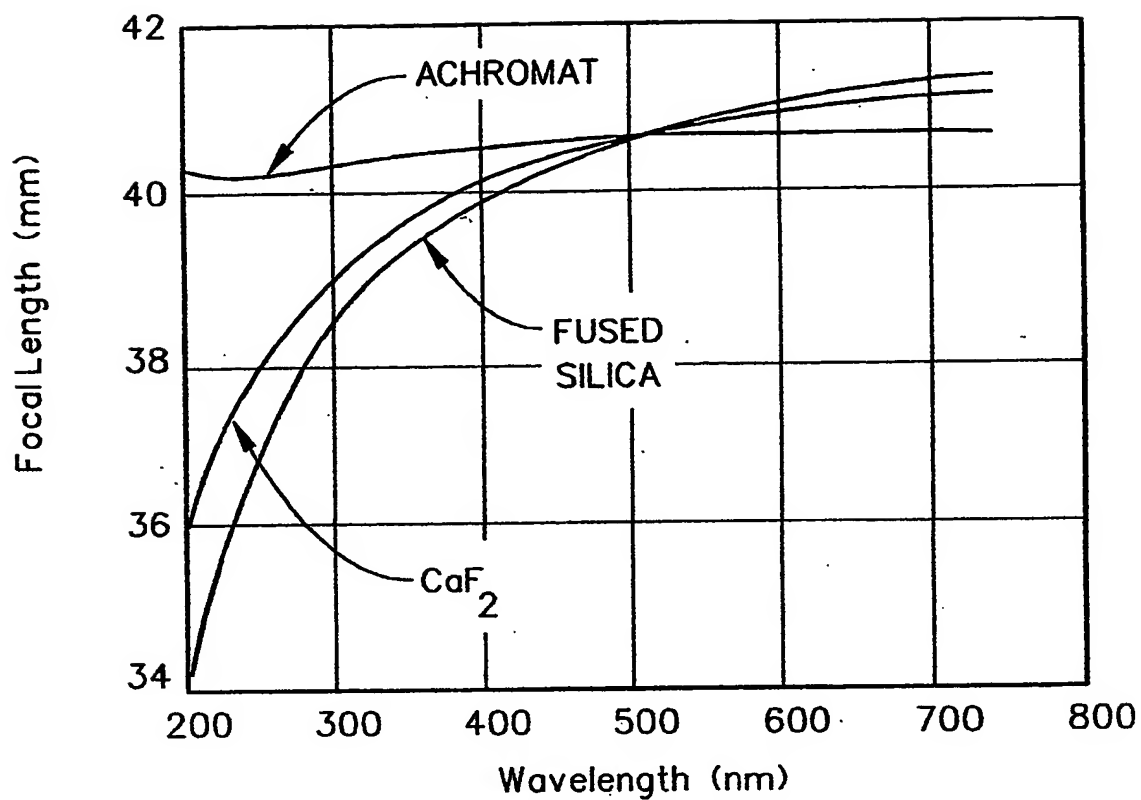for λc = 266, 633 nm & φ = 45 degrees

FIG. 6

FIG. 7a1

FIG. 7a2

FIG. 7a₃
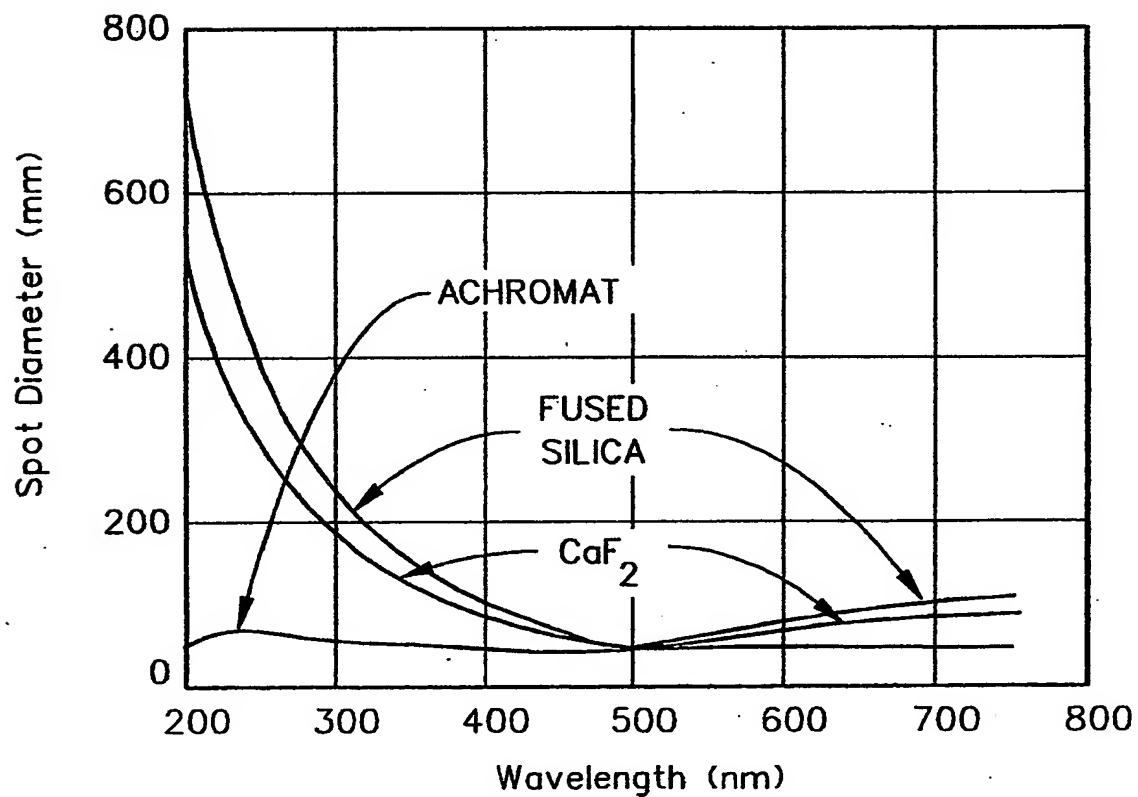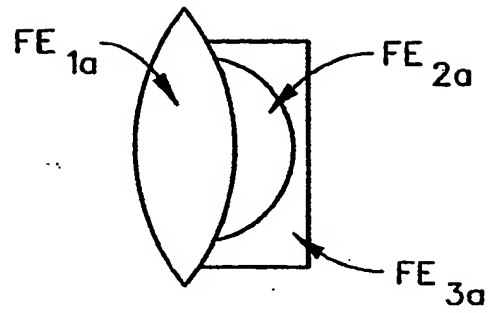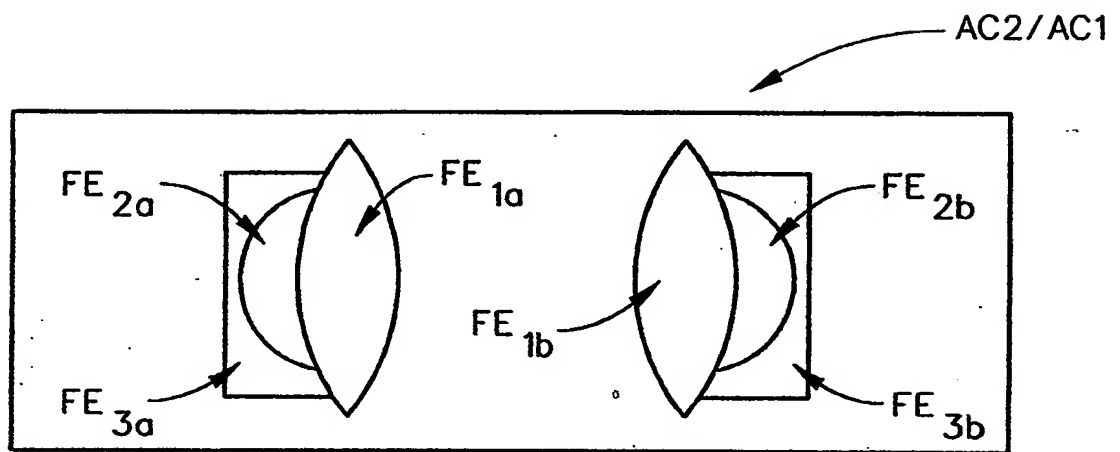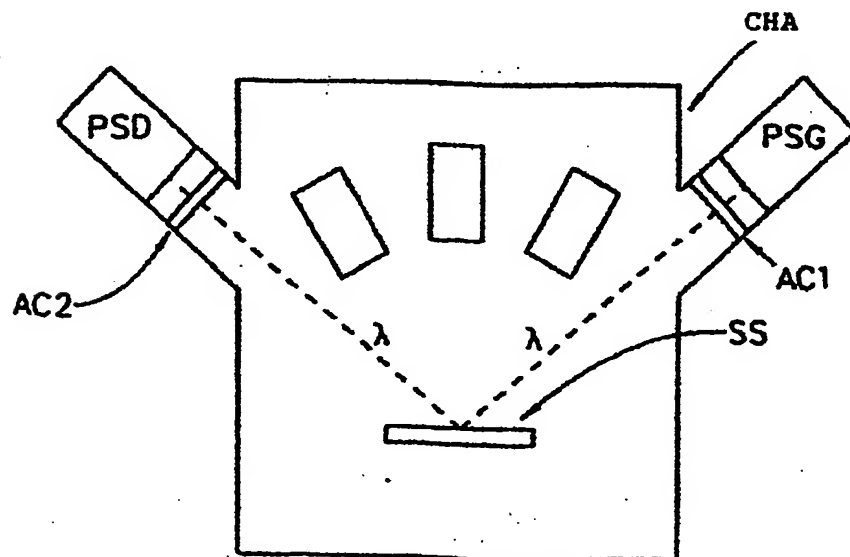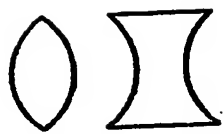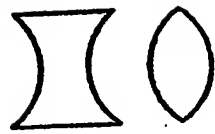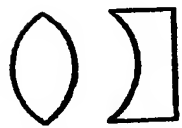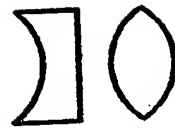

FIG. 7a₄

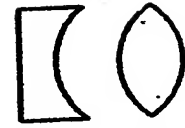
FIG. 8

FIG. 7a5

FIG. 7a6

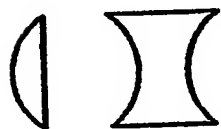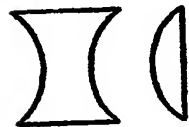FIG. 7a7

FIG. 7a8

FIG. 7a9

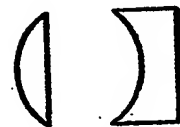FIG. 7a10

FIG. 7a11

FIG. 7a12
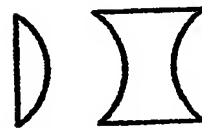
FIG. 7a13

FIG. 7a14

FIG. 7a15

FIG. 7a16

FIG. 7a17
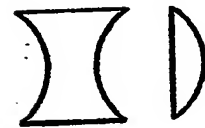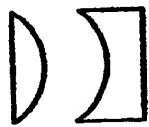
FIG. 7a18

FIG. 7a19

FIG. 7a20

FIG. 7a21

FIG. 7a22

C D C D
FIG. 7a23

C D D C
FIG. 7a24

D C D C
FIG. 7a25

D C C D
FIG. 7a26

CCD

FIG. 7a27

CDC

FIG. 7a28

DDC

FIG. 7a29

DCD

FIG. 7a30

DCC

FIG. 7a31

CDD

FIG. 7a32